Therapeutic device intended for the selective cytoreductive treatment of an obstruction in a natural lumen or passage of the human or animal body, said lumen being obstructed by the effect of a local cell proliferation, said device comprising element, in particular of cylindrical shape, intended to be placed in said natural lumen and sufficiently flexible to conform to said natural lumen, sufficiently rigid to maintain an artificial channel in said lumen. The tubular element supports lengthwise a medicinal sleeve which is intended to come into line with, and into contact with, the obstruction once the natural lumen has been intubated, and is designed to deliver locally, at least in its outer surface portion, at least one therapeutic agent which is cytoreductive, in particular cytotoxic, through contact with the cells under whose effect said lumen is obstructed.